WHAT IS CLAIMED IS:

1. A wireless portable data terminal (PDT) system, wherein by virtue of its novel overall physical configuration of prior art PDTs, it is very difficult easy to operate the wireless device in a truly single-handed operation.

2. A wireless portable data terminal (PDT) system, wherein its single handed operation promises to improve the user experience as well as increase worker productivity and efficiency.

3. A wireless portable data terminal (PDT) system, wherein its keypad and control function buttons are located at locations on its user console that enable the user to move his or her thumb without loss of secure grip about the PDT's housing during single-handed operation in diverse user environments.

4. A wireless portable data terminal (PDT) system, wherein its backlit LCD-type display panel is located below the aphanumeric keypad and control and function buttons.

5. A wireless portable data terminal (PDT) system, wherein complete and total control over the navigation of the display screen cursor can be achieved by the operator's thumb while holding and operating the PDT in the operator's hand.

6. A wireless portable data terminal (PDT) system, wherein the backlit LCD panel of the PDT is easy to view in even brightly lit user environments.

7. A wireless portable data terminal (PDT) system, wherein the data capture engine is a 1D or 2D laser scanning bar code reading engine integrated into the PDT housing.

8. A wireless portable data terminal (PDT) system, wherein the data capture engine is a linear-type imaging engine integrated into the PDT housing, capable of reading 1D and 2D bar code symbols.

9. A wireless portable data terminal (PDT) system, wherein the data capture engine is an area-type imaging engine integrated into the PDT housing, capable of reading 1D and 2D bar code symbols.

10. A wireless portable data terminal (PDT) system, wherein the data capture engine is manually activated by depressing a bar code reading activation switch on the user console of the PDT.

11. A wireless portable data terminal (PDT) system, wherein the data capture engine is automatically activated in response to the automatic detection of an object within the field of view of the data capture engine integrated within the PDT.

12. A wireless PDT system that employs a novel display-on bottom design which places the unit perfectly centered in the hand of the operator, allowing for the best possible viewing as well as providing comfortable single-handed operation.

13. The wireless PDT of claim 12, wherein a LCD display allows the PDT to show sharp, clear bitmap images while supporting all Windows-recognized font types and sizes.

14. The wireless PDT of claim 12, which further comprises an auto back-lit feature for automatically adjusting the brightness thereof to make the screen easy to read in all light conditions.

15. The wireless PDT of claim 12, designed for support within the download/charger cradle of a base station which interfaces with a host system using either USB or RS232 interface.

16. An improved method of data capture and transaction processing using the wireless PDT of claim 1.

17. The improved method of data capture and processing of claim 16, wherein the wireless PDT is physically configured for true single-handed operation.

18. The improved method of data capture and processing of claim 16, wherein true single handed operation is enabled by providing the display panel on the bottom of the user console panel of the PDT, and a multi-position display cursor navigation button above the display panel.

19. The improved method of data capture and processing of claim 16, wherein all user control and function buttons provided on the user control console of the PDT are located above the bottom positioned display panel.

20. An integrated development and deployment environment (IDE) for use in developing robust end-user applications with graphically rich graphical user interfaces (GUIs), that can be deployed on the wireless PDT of the present invention employing an open-source operating system that has no or low user license fees associated therewith.

21. An IDE for a wireless PDT system, wherein a powerful set of easy-to-use application development tools are provided for developing applications that can be run on the wireless PDT hereof, which employs a virtual machine (MVM) so that developed applications can be run on operating systems (OS) other than the operating system upon which the development environment operates.

22. An IDE for a wireless PDT system , wherein end-user applications can be developed on developer computers (PCs) running Microsoft's Windows 2000 OS, while such applications can be deployed on run-time environments supported by operating systems such as uClinux, having ultra-low or no user license fees.

23. An IDE for a wireless PDT system, wherein the IDE enables the creation of display screens using drag-and-drop type visually-oriented programming techniques within a "what you see is what you get (WYSIWYG) development environment.

24. An IDE for a wireless PDT system, wherein objects within the display screens are bound to objects within a database using development tools support "event-driven" programming, wherein the developer simply defines what actions are to occur in response to specified events.

25. An IDE for a wireless PDT system, wherein development tools are provided for simply creating SQL relational database management systems (RDBMS) that are supported either within memory structures aboard the PDT, or alternatively aboard Web-enabled database servers connected to an IP-based network, to which the base station of the present invention is interfaced directly or by way of a host computer system.

26. An integrated development and deployment environment (IDE) which contains an easy-to-use Windows-based application generator and download utilities. For advanced programming, developers can choose to write software using an advanced application generator or 'C' programming application generator which provides the developer with simple programming and fast setup. Further enhancements available in the application generator include drag and drop icons, time/datestamp, battery level indicator and variable fonts, giving the developer the ability to create graphically-rich custom display screen layouts.